



**USAID DCHA ENVIRONMENTAL THRESHOLD DECISION FOR THE
ENVIRONMENTAL STATUS REPORT (ESR)**

Awardee: Save the Children (SC)
DCHA Office: Food for Peace
Program Title: Livelihoods, Agriculture and Health Interventions in Action (LAHIA)
Award Number: AID-FFP-A-12-00010
Country/Region: Niger/West Africa
Life of Grant: July 2012 - June 2017
LOA Amount: \$29,845,000
IEE Link: http://gemini.info.usaid.gov/egat/envcomp/document.php?doc_id=38845

ENVIRONMENTAL ACTION RECOMMENDED:	
Categorical Exclusion: X	Negative Determination w/ Conditions: X
Positive Determination:	Deferral:
Bureau Environmental Threshold Decision (ETD): Approval w/ Conditions	

USAID Bureau Environmental Officer Approval:

This Environmental Threshold Decision (ETD) is to inform **Save the Children (SC)** that the **FY 2017 PREP Environmental Status Report (ESR)** has been approved with Conditions by the DCHA Bureau Environmental Officer (BEO), on September 2, 2016. SC has undergone all necessary Mission and Washington clearances and meets the minimum 22 CFR 216 requirements, with the following 6 conditions and 1 recommendation for implementation.

Summary of BEO Conditions:

Condition 1: SC must provide more detail regarding the Niger PERSUAP related activities within one month from today (09/02/2016).

Condition 2: SC must provide more detail regarding any environmental issues, best environmental practices, and/or lessons learned from the implementation of these fertilizer activities, including education of counterfeit fertilizers, to the DCHA BEO within one month from today (09/02/2016).

Condition 3: SC must provide the water testing results to the DCHA BEO within one month from today (09/02/2016).

Condition 4: SC must ensure adequate operation, maintenance and disposal of procured and constructed commodities, including solar panels.

Condition 5: SC must provide instruction to end-users on how to properly decommission a latrine.

Condition 6: SC must ensure that sufficient funds are allocated in order to ensure environmental compliance.

Recommendation 1: SC should consider planning options for climate screening and sensitivity during implementation in accordance with upcoming requirements of the US Presidential Executive Order 13677.

Issue 1: PERSUAP activities.

Discussion: The DCHA BEO would like to request details regarding SC's PERSUAP activities. The PERSUAP was mentioned in this ESR. However, the DCHA BEO would like more detail, especially with respect to the agricultural aspects. How is the PERSUAP's implementation proceeding? What is the status of training professionals going? The DCHA BEO is particularly concerned with SC lessons learned as related to: quality assurance, personal protective equipment, counterfeit pesticides, etc. Please respond to these questions and provide any further updates regarding PERSUAP implementation to the DCHA BEO.

Condition 1: SC must provide more detail regarding the Niger PERSUAP related activities within one month from today (09/02/2016).

Issue 2: Fertilizer activities.

Discussion: The DCHA BEO appreciates SC mentioning their fertilizer activities and their promotion of organic fertilizers. The ESR notes that the, “Use of organic pesticides and chemical fertilizers (i.e. applying the micro-dose technique) is monitored to eliminate the risk of contamination of water, soil, and food.” (p. 2) Concerning the range of risks associated with fertilizers, the DCHA BEO is concerned about the limited information provided in the ESR regarding the fertilizers.

Fertilizers are frequently lumped together with pesticides under the generic heading of “agro- or agrichemicals.” From an environmental compliance perspective (22 CFR 216), as well as from a field-level implementation point of view, this is inappropriate, because it implies that fertilizers require the same level of scrutiny reserved for pesticides. Whereas pesticides are subject to clearly defined environmental review procedures, and an approval process to promote safer use and integrated pest management, such procedures do not apply to fertilizers (procurement procedures do apply to quantity bulk purchase). As with any technology, however, it is recommended that fertilizers be thoughtfully employed according to best practice, promoting integrated soil fertility management, within the context of the prevailing biophysical and socio-economic conditions, as well as the desired outcomes. This [USAID AFR Fertilizer fact sheet](#) was developed to assist in that regard.

“Dodgy” Fertilizers: As noted in this [The Guardian article](#), the sell of counterfeit, diluted, or adulterated fertilizers is a concern. The ESR should must make mention of how the project will address the issue of counterfeit fertilizers and educate the community on this issue. While very challenging, the risk should be made known to the beneficiaries, especially so that those using fertilizers will be conscious of this problem after the program has ended.

The DCHA BEO would like to request that additional information is provided by SC regarding any environmental issues, best environmental practices, and/or lessons learned from the implementation of these fertilizer activities within the context of prevailing biophysical and socio-economic conditions. The DCHA BEO is also interested in learning how SC might address the issue of counterfeit fertilizers within LAHIA.

Condition 2: SC must provide more detail regarding any environmental issues, best environmental practices, and/or lessons learned from the implementation of these fertilizer activities, including education of counterfeit fertilizers, to the DCHA BEO within one month from today (09/02/2016).

Issue 3: Water quality testing results.

Discussion: The DCHA BEO is pleased to note that SC has been doing water testing at 72 water points throughout the project (p. 13). However although the ESR mentions that it is contracting a private sector water quality to do the testing, it does not provide results from the water testing in this ESR.¹ Water testing results are important for ensuring environmental compliance and the DCHA BEO would like to see those results.

Condition 3: SC must provide the water testing results to the DCHA BEO within one month from today (09/02/2016).

Issue 4: Adequate operation and maintenance of procured commodities ensures their long term sustainability and efficiency

Discussion: Concerning the solar panels to be procured, the BEO is supportive of a solar system as an alternative energy source, but cautions the grantee that: “*Adverse environmental impacts associated with solar energy include pollution caused during the manufacture of solar devices, acid battery spillage, and improper disposal of batteries*”.² Additionally, according to the United States government’s Solar EIS project “[p]hotovoltaic panels may contain hazardous materials, and although sealed under normal operating conditions, there is the potential for environmental contamination if they [are] damaged or improperly disposed upon decommissioning.”³

While USAID fully promotes the use of alternative energy sources such as the use of photovoltaic cells, these energy sources require planning for their siting, use, maintenance, as

¹ “The program has finalized a contract/protocol with a private sector water company (Société d’Exploitation des Eaux du Niger) to conduct ongoing water quality testing, with the objective of monitoring and guaranteeing safe drinking water, and to issue warnings of any possible contamination of the water supply, if necessary.” (p. 4)

² USAID EGSSAA Guidelines on Energy Sources for Small-Scale Development
<http://www.encapafrika.org/egssaa/energy.pdf>

³ Solar Energy Development Environmental Considerations
<http://solareis.anl.gov/guide/environment/>

well as for battery, inverter and panel disposal or recycling. As noted in a recent IUCN renewable energy fact sheet⁴, solar panels can provide ideal energy solutions for rural communities, however, their use does generate electronic wastes (inverters) and potentially harmful lead-acid battery⁵ wastes that need to be disposed of properly when used inverters and batteries need to be replaced by new ones. Environmental contamination is possible if panels are damaged or if other equipment, such as batteries, are improperly handled. Best management practices here include ensuring that batteries are not opened or drained, and preventing the lead from entering the environment, especially the food-chain. For more information, consult the Solar Energy Development Programmatic EIS Information Center⁶.

For improved efficiency and environmental compliance, the grantee is requested to develop operation and maintenance schedules for these commodities, which should also include measures for the appropriate disposal of solar panels and batteries to be procured once they become obsolete or beyond repair, with a “recycle” option if possible.

Condition 4: SC must ensure adequate operation, maintenance and disposal of procured and constructed commodities, including solar panels.

Issue 5: The ESR does not include mitigation measures or reference the decommissioning of latrines.

Discussion: The ESR mentions construction of latrines and discusses some impacts associated with latrine construction. However, latrine activities can lead to environmental impacts, such as water contamination, from a failure to properly decommission a latrine after it is full. Especially as this project is drawing to a close, providing information to users about the proper decommissioning of the latrines is important in order to ensure that the latrines are used and closed up appropriately in the future.

⁴ IUCN (2012):

https://cmsdata.iucn.org/downloads/solar_photovoltaic_pacific_renewable_energy_factsheets_2012.pdf

⁵ Battery Council International: http://batteryCouncil.org/?page=battery_recycling

⁶ Solar Energy Development Environmental Considerations
<http://solareis.anl.gov/guide/environment/>

The ESR fails to mention any activity related to the decommissioning of the latrines. This [Operation and Maintenance Guideline](#) from the “Excreta Disposal in Emergencies” by UNICEF⁷ provides relevant information regarding the decommissioning of latrines in section 8.8. USAID has also provided some more general information about operation and maintenance of latrines in the [Sector Environmental Guidelines for Water Supply and Sanitation](#). One additional resource the BEO would like to point SC to is the guide for [Sanitation for Primary School in Africa](#) by the Water, Engineering and Development Centre at Loughborough University. This guide provides additional details about decommissioning of latrines. The BEO recommends that SC reviews these guidelines and incorporate decommissioning best practices into their latrine projects. For example, SC may consider the planting of vegetation on the latrine sites, the disinfection of the site, the appropriate time of year to decommission a latrine, etc.

Condition 5: SC must provide instruction to end-users on how to properly decommission a latrine.

Issue 6: Environmental Budgeting.

Discussion: The DCHA BEO wants to remind SC to appropriately budget funds for environmental staffing, training, activities, etc. A budget review for SC was not done during the technical review of this ESR. However, the DCHA BEO would like to emphasise the importance of environmental budgeting. For direction and guidance in developing a budget for environmental compliance and management activities within a development program, USAID has developed an [Environmental Compliance Budgeting Toolkit](#). This toolkit has sections to assist both budget developers and selection committee members who review proposal budgets.

Condition 6: SC must ensure that sufficient funds are allocated in order to ensure environmental compliance.

Issue 7: Awareness raising on the Climate Change Executive Order 13677.

Discussion: SC should incorporate the US Presidential Executive Order on Climate-Resilient International Development. The memorandum states that climate-resilience considerations must be incorporated into international development work. SC should be aware of this Executive

⁷“Excreta Disposal in Emergencies”, UNICEF, http://www.unicef.org/eapro/activities_7081.html

Order from previous DCHA BEO ETDs but no comments about its incorporation into the project were included in this ESR. The complete Executive Order is available at: www.gpo.gov/fdsys/pkg/FR-2014-09-26/pdf/2014-23228.pdf.

Recommendation 1: SC should consider planning options for climate screening and sensitivity during implementation in accordance with upcoming requirements of the US Presidential Executive Order 13677.

TITLE II ENVIRONMENTAL STATUS REPORT FACESHEET

Title of Program: Livelihoods, Agriculture and Health Interventions in Action (LAHIA)

Awardee: Save the Children

Host country or Region: Niger

Awardee Number: AID-FFP- A-12-00010

Life of Activity: Five year (August 17, 2012 to September 30, 2017)

Fiscal Year of Submission: Fiscal Year 2016

Implementation Year: October 1, 2015- September 30, 2016

Funding Begin: August 17, 2012		LOA Amount: \$29,845,000	
Funding End: August 31, 2017		Sub-Activity Amount: \$	
Resource Levels: \$29,845,000		Food Aid Commodity: 6,930 MTs	
Monetization Request: \$0 CDF: \$16,000,000		202(e): \$5,531,538	ITSH: \$2,406,100
ESR Prepared by: Nivo Ranaivoarivelo		Date: June 27, 2016	
Date of Previous ESR: June 12,2015		Date of Most recent IEE: 11/29/2012	
Contact Name: Suzanne Berkey, Sr. Director, Food Security Phone Number: (202) 640-6751 Office Email: sberkey@savechildren.org			

A. Status of the Initial Environmental Estimate.

☒ **No revisions or modifications** of the Initial Environmental Estimate (IEE) are needed.

☐ An amended IEE is submitted.

B. Status of Fulfilling Conditions in the Initial Environmental Estimate, including Mitigation and Monitoring

☐ **All mitigation measures were successful at** preventing environmental impact specified in the original IEE. An Environmental Status Report (ESR) describing compliance measures taken is attached.

☒ **Improved mitigation measures** were adopted to better reduce environmental impacts. An ESR describing these improved compliance measures taken is as described below.

C. Food for Peace Approval of the Environmental Status Report

Food for Peace Mission or Regional Office, as appropriate:

Abdou Ndiaye

Food for Peace Officer (Cleared by email, see next page) Date: 8/30/2016

Mike Heller

Environmental Officer (Cleared by email, see next page) Date: 8/30/2016

DCHA Bureau Environmental Officer Erika J. Clesceri Date: 9/2/2016

Clearances for DCHA FFP Niger SC and MC ESRs?

Michael Heller <mheller@usaid.gov>

30 de agosto de 2016, 10:17

Para: Abdourahmane Ndiaye <abndiaye@usaid.gov>

Cc: Erika Clesceri <eclesceri@usaid.gov>, Camilien Saint-Cyr <csaint-cyr@usaid.gov>, DCHA GEMS Support <dchagemssupport@smtm.org>

I clear on both.

Thank you, Erika and Abdou.

Mike

On Tue, Aug 30, 2016 at 12:09 PM, Abdourahmane Ndiaye <abndiaye@usaid.gov> wrote:

Dear Erika,

I clear on the two documents by email.

Note: After I've reviewed, I was just waiting for the FFP Officer's clearance before clearing.

Thank you very much and best regards,
Abdou

Abdourahmane Ndiaye

Regional Environmental Compliance Specialist

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On Tue, Aug 30, 2016 at 3:29 PM, Erika Clesceri <eclesceri@usaid.gov> wrote:

Dear Mike and Abdou,

Hope this email finds you well. I am checking in on the clearances for Niger SC and MC ESRs. If you could please send me those clearances then I can move forward in providing final clearance on both ESRs.

Thanks,
Erika

Erika Clesceri, Ph.D.

DCHA Bureau Environmental Officer (BEO)

Bureau for Democracy, Conflict and Humanitarian Assistance

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[DCHA BEO Google Site](#)

A. Status of the Initial Environmental Estimate

i. Modified or New Activities

LAHIA's initial environmental examination (IEE) was first presented on 28 May, 2012, and later on 8 August, 2012 at the time of submission of the final proposal to USAID, the latter which was approved by BEO/DCHA on 29 November 2012. No modifications or new activities that would affect Reg 216 and/or would require a modification of the IEE have been reported. New activities planned in Year 5 and described in the Year 5 DIP, since the last IEE, include functional literacy programming, which is subject to a categorical exclusion (not subject to mitigation measures).

ii. Resolution of Deferrals:

There were no deferrals associated with the last IEE. Consequently, no requests for deferrals related to the IEE were submitted.

iii. Update of the Initial Environmental Examination

Based on the above, is an update IEE needed?

☐

Yes (if yes attach here)

No

☒

If the previous document was categorical exclusion submission, is an update categorical exclusion needed to deal with new categorical exclusion for new activities?

☐

Yes (if yes attach here)

No

☒

B. Status of fulfilling Initial Environmental Estimate Conditions

I. List of Mitigation Measures and Monitoring of IEE Conditions

The present report describes the implementation of mitigation measures identified in the Environment Mitigation and Monitoring Plan (EMMP) and integrated in the Year 4 DIP. As per the IEE, LAHIA avoids implementing any activities in or nearby natural protected areas. The program implements mitigation measures for any activity potentially producing a negative impact on natural resources in the LAHIA intervention zone.

The IEE identified mitigation measures linked to the following activities: food distributions, construction and rehabilitation of water points, and latrine construction. Showing compliance with 22 CFR Reg 216, the program received USAID's approval of the Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) in Year 3. Use of organic pesticides and chemical fertilizers (i.e. applying the micro-dose technique) is monitored to eliminate the risk of contamination of water, soil, and food. Fumigation of food commodities at the warehouse level is also regulated and described in the PERSUAP.

Regarding distribution of food rations, the program uses Last Mile Mobile Solution (LMMS) software for beneficiary tracking, to minimize losses. LAHIA also continues to promote the use of improved cook stoves, targeting 2,500 households and also using the stoves during cooking demonstrations. Use of the improved stoves contributes significantly to environmental protection: the stoves require 50% less firewood than traditional stoves and reduce cooking times by 25%. In Year 4, 2,743 stoves were manufactured and are being used in households.

Moringa seedlings are grown in village-level tree nurseries. One hundred and nineteen (119) individuals including 79 women were trained on how to grow moringa seedlings. The 50,000 seedlings resulting from this effort were planted in home gardens and at vegetable plots. The leaves are destined for household consumption—as a highly nutritious food—and for sale. Model mothers (*mamans lumières*) demonstrate how to prepare food with moringa leaves during cooking demonstrations.

In Year 3, the program identified and trained 1,188 volunteers in natural resource management in 60 villages in the intervention zone, who are now promoting Assisted Natural Regeneration (ANR) and conservation agriculture practices. Regarding promotion of promising agricultural practices and natural resource management, LAHIA established 60 Farmers Natural Resource Management Committees. One hundred and fourteen (114) committee members were trained in environmental preservation and protection. Farmers have committed to using ANR with the objective of improving soil quality.

LAHIA used the Farmer Field School approach (FFS) to promote sustainable agricultural technologies, innovations and practices, such as the micro-dose fertilization technique¹, optimal seed planting density, tests of improved crop varieties, and development of organic pesticides. These practices are popularized by the lead farmers in 181 FFSs.

Year 4 saw the expansion of vegetable production in 32 villages, with the construction of six wells fitted with hand pumps. The wells are used for irrigation and equipped with solar panels. LAHIA installed 2,827 meters of drip lines to enable using the “California network²” irrigation system on three sites, and to promote optimal use of water resources. At each site, the program supported the establishment of water management committees. These committees have established rules and procedures for preventing overuse of groundwater as a result of irrigation.

All of the water points installed/rehabilitated were designed to comply with national and international norms and standards, in line with the IEE mitigation measures identified (this includes both infrastructure technical design and the processes and methods used during construction/rehabilitation). Each water point has an associated WASH committee, as recommended by Niger national water policy. WASH committee members are trained in management, monitoring, and upkeep of infrastructure to promote the sustainability of water points. Primary responsibility for infrastructure maintenance and repairs is assigned to trained volunteers and local craftsmen/technicians. In YR4, LAHIA trained a total of 16 craftsmen/technicians and 68 volunteers for all the water points installed/rehabilitated. A

¹ This technique implies an effective, rationed use of fertilizer as a way to prevent soil degradation and avoid contamination of food and water.

² This is a water distribution system using underground plastic pipe. It help reduce water transportation labor for women from the basin to the gardens plots during watering. It saves a lot of water especially in the Sahel context.

water quality control plan was developed to ensure each of the 72 water points (68 newly built and four rehabilitated) conforms to local and WHO water quality standards. Through the WASH committees, LAHIA monitors groundwater use, to mitigate and minimize any possible negative effects on the water table.

The program has finalized a contract/protocol with a private sector water company (*Société d'Exploitation des Eaux du Niger*) to conduct ongoing water quality testing, with the objective of monitoring and guaranteeing safe drinking water, and to issue warnings of any possible contamination of the water supply, if necessary. Water points were designed as High Yield Mechanized Systems (MAEP). Water point management is aligned with national water policy in which management of water supply infrastructure falls under the authority of communes, and can be delegated by commune authorities to private sector partners.

All public and school latrines were built according to technical norms and standards for the prevention of infectious disease and groundwater contamination, and to comply with the program's IEE mitigation measures. All latrine construction debris was removed and the construction sites were restored to their original condition. Note that the construction of basic latrines does not generally produce debris or waste that would pose any environmental threat. School latrine management committees were mobilized and are responsible for monitoring the condition of the infrastructure and for maintenance. In Year 4 LAHIA continued to promote family latrine construction in 32 villages in the target communes, piloting the Community Led Total Sanitation (CLTS) approach.

Table 1: Planned list of mitigation measures and monitoring indicators

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
Activity 1.1.2.1 Distribute MCHN ration to PLW and Under 2 Children (on-going throughout the year)	1. Distribution points are centrally located in the project zone and dates for each distribution communicated through village committees. Actual food distribution completed using best practices to reduce losses and spillage (LAHIA staff have been trained). Beneficiaries are registered using LMMS software.	1. Distribution points are located throughout the program intervention zone. Distribution dates are communicated to the beneficiaries via distribution committees and the Peer Educators. Beneficiaries are tracked with the LMMS software, in order to minimize losses.	a) Number of PLW and Under 2 children receiving rations.	a) 23,320 individual beneficiaries and 10,604 households reached through the food distributions.	Distribution report Quarterly reports (if appropriate) and-ARR	LAHIA senior staff, including commodity distribution and warehouse manager and Environmental Specialist
	2. Central warehouse is organized as per Regulation 11 standards for stacking and organizing by BUBD. Fumigation is completed by recognized company working with LAHIA warehouse management. PERSUAP was developed by Sun Mountain in collaboration with CRS and Mercy Corps.	2. Commodity management respects quality norms and standards (e.g. with regard to storage and commodity movement). A PERSUAP was developed and approved by USAID.	b) Number of PERSUAP measures applied	b) One fumigation of the warehouse was conducted in October 2015 in compliance with the approved PERSUAP	Fumigation certificate provided by the entitled company Fumigation report	
	3. Technical outreach about most effective use of food rations for improved nutrition and limited wood use will be completed on a regular basis (including promotion of improved stoves).	3. The program organizes cooking demonstrations with PD/Hearth groups and uses these sessions as an opportunity to promote improved	c) Number of cooking demonstration using improved stoves	c) 90 cooking demonstrations were conducted in YR4 and 7946 PLW reached	Distribution report Quarterly reports (if appropriate) and ARR	
				d) 2,743 improved		

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
		cook stoves.		stoves produced and being used by 2500 households and at food distribution sites		
Activity 1.1.2.2: Distribute protective family rations during the lean season (five months) to households receiving individual rations	1. LAHIA will continue to : - Promote improved stoves in households; - Promote the planting of Moringa trees by beneficiary households,	1. Popularization of improved stoves. During Year 4, 2,743 improved stoves were produced in the 21 villages, and 2,500 households are using the stoves. Fifty-thousand moringa tree seedlings were grown and planted in home gardens and at vegetable production sites.	Number of villages in which LAHIA introduces improved stoves. b) Number of households using improved cook stoves. c) Measure use of efficient cooking techniques – using lids, better fuel, etc. d) Number of villages in which LAHIA plants moringa trees, e) Number of Household (HH) beneficiaries of moringa trees, number of moringa trees planted.	a) 21 villages benefiting from improved stoves in Year 4 and promotion of improved stoves is ongoing. b) 2,743 improved stoves produced and being used by households and at food distribution sites c) 2,500 households using improved stoves e) 50,000 moringa seedlings grown 2500 household with moringa plantation	Quarterly reports (if appropriate) and ARR	LAHIA senior staff, including commodity distribution and warehouse manager and food monitors. Nutrition coordinator for technical outreach

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
	<p>2. Distribution points are centrally located in the project zone and dates for each distribution communicated through village committees. Actual food distribution completed using best practices to reduce losses and spillage (LAHIA staff have been trained). Beneficiaries are registered using LMMS software.</p> <p>3. Central warehouse is organized as per Regulation 11 standards for stacking and organizing by BUBD. Fumigation is completed by recognized company working with LAHIA warehouse management. Site-specific PERUAP to be completed during first quarter of IY2.</p> <p>4. Technical outreach about most effective use of food rations for improved nutrition and limited wood use will be completed on a regular basis (including promotion of improved stoves).</p>	<p>2. All the distribution sites are located in the program intervention zone. Distribution committees have been established and the distributions dates are communicated to the beneficiaries by these committees.</p> <p>3. Commodity management respects quality norms and standards, for example, regarding storage and commodity movement (e.g. FIFO).</p> <p>4. Use of improved stoves during cooking demonstrations.</p>	<p>f) Number of participants in Farmer Management of Natural Resources activities;</p> <p>g) Number of hectares under FMNR</p>	<p>f) Identification of volunteer farmers to apply FMNR techniques is underway</p> <p>g) The total surface area will be calculated after training and application in farmers' fields.</p>		
Activity 1.3.1:	1. Hydrology studies conducted by the LAHIA water Engineers, GON water services.	1. LAHIA conducted a hydrogeological	a) Site assessment and Hydrology survey	a) Report available	Survey report	LAHIA WASH

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
Construct at least 65 new and rehabilitate 7 existing water points	<p>2. New wells will be dug at least 100 meters from latrine installations (preferably uphill). Proper drainage of waste water that can lead to possible groundwater contamination is provided. The construction of a concrete apron is required to ensure correct drainage of waste water away from the well head; also wells head needs to incorporate an access lid to avoid the falling of small animals in the water.</p> <p>3. Wells shall be constructed and/or rehabilitated based on established technical standards for construction and usage (e.g. wells shall be lined with concrete well rings to prevent possible contamination by parasites.).</p> <p>4. Establish and train WASH management committees to maintain public water points and sanitation facilities. The committees will work with the 7-11 peer educators and other BCC facilitators to promote WASH messages.</p>	<p>study in close collaboration with water sector government technical services.</p> <p>2. The technical studies completed prior to installation or rehabilitation of water infrastructure (wells fitted with hand pumps) took environmental protection measures into account, namely protection from cattle/livestock and functional drainage canals. All completed water points include these measures.</p> <p>3. These environmental protection measures were taken into consideration during construction of infrastructure.</p> <p>4. All wells with hand pumps built and rehabilitated have a water management committee (CGPE).</p>	<p>report</p> <p>b) Monthly number and proportion of water points with repairs needed and completed.</p> <p>c) Number of households served by each water point.</p> <p>d) Number of members of water management committees trained</p>	<p>b) 3,428 households benefiting from the total number of water points built/rehabilitated.</p>	<p>Quarterly reports (if appropriate) and ARR</p> <p>Quarterly reports (if appropriate) and ARR</p> <p>Quarterly reports (if appropriate) and ARR</p>	<p>coordinator and field staff; Nutrition Coordinator; WASH management committees</p>

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
	<p>5. Provide communities with information about options for treating drinking water obtained from open wells and surface water sources.</p> <p>6. Local masons and pump repair technicians will be trained to promote the sustainability of WASH interventions.</p> <p>7. Animals will be prevented from drinking from these sources.</p> <p>8. WASH committees should set usage levels to minimize impact to the water table.</p>	<p>Each member of the committees visited and monitored had received training on maintenance of WASH infrastructure.</p> <p>5. Awareness-raising around water treatment options was conducted in Year 1. Hygiene and sanitation awareness-raising was organized targeting water users, to prevent contamination of water sources.</p> <p>6. LAHIA trained local masons and craftsmen/technicians in infrastructure management, monitoring, and maintenance/repair, to promote the long-term use of the infrastructure. Infrastructure maintenance/repair is undertaken by these individuals at the local level.</p> <p>7. WASH committees took measures to limit the numbers of</p>	<p>e) Number of local masons trained;</p> <p>f) Number of pump repair technicians trained and equipped</p>	<p>c) 34 local masons trained to promote the sustainability of latrines</p> <p>d) 16 craftsmen / technicians and 68 volunteers trained and equipped to ensure infrastructure maintenance</p>		

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
	9. Proper disposal of all construction waste after completion of wells.	<p>livestock watered at the infrastructures.</p> <p>8. Water management committees were established for each water point (wells fitted with hand pumps used for irrigation). Rules and procedures on water use have been established by committees for each water point, to avoid overuse of groundwater.</p> <p>9. All infrastructure construction sites were returned to their original state after construction work.</p>				
Activity 1.3.2: Construct 261 household Ventilation Improved Pit (VIP) latrines and 25 public gender-segregated	1. Determine barriers to using latrines and what messages will be convincing to people.	1. WASH Peer Educators are delivering sanitation behavior change communication designed to encourage communities to remove taboos around latrine use	b) Quarterly number and proportion of latrines with repairs needed and completed.	a) Monitoring underway	Quarterly reports (if appropriate) and AAR	LAHIA WASH coordinator and field staff; Nutrition Coordinator; WASH management committees

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
VIP	<p>2. Latrines that meet minimum standards for preventing disease transmission including placement, ensuring latrines do not contaminate local water sources/water table and minimize insects.³</p> <p>3. Local technicians will be trained to promote the sustainability of WASH interventions.</p> <p>4. All latrines shall be lined since most of the targeted villages are located either on the highly permeable Jigawa sands or near the Goulbi valleys.</p> <p>5. Where existing latrines are close to a source of water in areas of high water table, the latrine shall be moved to at least 100 meters away.</p> <p>6. Proper disposal of all construction waste after completion of latrines.</p>	<p>2. All public and school latrines were built to norms for the prevention of infectious diseases and groundwater contamination</p> <p>3. LAHIA trained volunteers and craftsmen/technicians in water infrastructure maintenance/repair.</p> <p>4. LAHIA made sure communities were aware of the importance of ensuring latrine walls are sufficiently strong and stable, to eliminate the risk of collapse.</p> <p>5. Latrines are built to norms.</p> <p>a) All debris from latrine construction is disposed of, and the sites are returned to their original state.</p>	<p>c) Quarterly number and proportion of latrines assessed to be sufficiently clean.</p> <p>d) The Number of management committees for public and school latrines that are created.</p>	<p>b) Assessment of public/school latrines underway</p> <p>c) 15 school latrine management committees established</p>		

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
Activity 1.3.3: Promote treatment options for drinking water collected from open wells and surface sources and good hygiene practices.	<p>1. Train WASH committees on the proper placement of water sources with regard to latrine and other potential sources of contamination (livestock). Training will also include the proper use of bleach for water treatment.</p> <p>2. Work with technical services at the regional level to complete analysis of water samples from existing sources. Disseminate results to WASH committees and include their participation in this process with technical services.</p> <p>3. Technical support package for WASH committees will include promotion of key hygiene practices (hand-washing and food preparation prior to cooking).</p>	<p>1. Members of WASH committees are trained on locating water points sufficiently far from potential sources of contamination.</p> <p>2. Testing of water samples from newly built/rehabilitated water points was conducted, to assess water quality (e.g. physical, chemical, bacteriological quality). A contract/protocol has been finalized between LAHIA and a private sector water company (<i>Société d'Exploitation des Eaux du Niger</i>) for monitoring water quality.</p> <p>3. The program plans to use Participatory Hygiene Assessment and Sanitation Transform (PHAST) tools for raising</p>	<p>a) Quarterly number and proportion of water points testing negative for all critical contaminants and water-borne diseases</p> <p>b) Number of villages using water treatment techniques;</p> <p>c) Number of disagreed people trained in water treatment techniques</p>	<p>a) 72 water points with acceptable water quality based on test results</p> <p>b) Water testing was conducted for the 72 water points</p> <p>c) The related activity was not implemented in Year 4.</p>	<p>Quarterly Reports (as applicable) and AAR.</p> <p>Water analysis report</p>	Coordinator; WASH Committees

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
		community awareness related to hygiene, and especially water hygiene.				
Activity 2.2.2: Disseminate good agricultural techniques and management practices at the village level	<p>1. Emphasis will be placed on the safe and smart use of fertilizers to prevent soil degradation and food and water contamination. This includes encouraging the use of methods to build organic materials in soils.</p> <p>2. Farmers will be provided with messaging in subsequent years emphasizing safe and efficient use of fertilizers.</p> <p>3. Train NRM committees at village level to enforce protection of the natural resource</p>	<p>1. Innovative agricultural technologies are popularized through Farmer Field Schools, enabling wide scale application. The program promotes the micro-dose fertilization technique, as a way to prevent the contamination of food, soil and water. Additionally, the FFS promote composting, as a sustainable agriculture practice.</p> <p>2. Over 3,950 farmers are using the micro-dose fertilization technique.</p> <p>3. Natural Resource Management Committees have been mobilized at the village level to monitor use of agricultural resources and promote</p>	<p>b) Quarterly Number of beneficiaries adopting a minimum of one environmentally sustainable technique</p> <p>c) Percentage of water use management committees who are applying recommended environmental</p>	<p>a) Numbers/data on are currently unavailable on the number of adopters. A total of 114 persons have been trained (members of Farmers Natural Resource Management Committees)</p> <p>b) Data unavailable at this time in the year.</p>	Quarterly reports (if appropriate) and AAR	LAHIA Livelihood Coordinator, WASH Coordinator agricultural officers and M&E team

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
	<p>4. All seed packages will be in compliance with GON regulations and protocols</p> <p>45 Conservation Agriculture practices could include, but not limited to:</p> <ul style="list-style-type: none"> • Crop diversification • Use of optimum plant densities • Use of improved crop varieties • Proper soil preparation and erosion control • Minimum tillage, • Crop rotation using legumes, and crop residue mulching • Surface water management and conservation to increase water use efficiency (Zai pits, tied ridges, etc) • Integrated Pest Management (IPM) and Integrated Soil Fertility Management <p>5. All water-related works shall be performed according to best engineering practices to maximize the efficiency and durability of the edifice while minimizing present and future impacts. Best practices include (but are not limited to) the following:</p> <ul style="list-style-type: none"> • construction materials and stockpiled soil will not be placed temporarily or permanently in waterways, • Vegetation will be cleared to prevent anaerobic conditions.⁴ 	<p>environmental preservation and protection. These committees provide technical support to farmers, focused on strengthening the resilience of the region's natural resources.</p> <p>4. LAHIA has used the Farmer Field School approach (with a total of 181 FFS) to promote application of sustainable agricultural technologies, innovations, and practices such as the micro-dose fertilization technique, optimal seed planting density, tests of improved crop varieties, and development of organic pesticides</p> <p>a)</p>	<p>mitigation measures for sustainable irrigated water use and watershed protection</p>			

Activities	Planned mitigation measures	Mitigation measures applied in Year 4	Monitoring indicators	Progress on targets	Monitoring and reporting frequency	Persons responsible
	6. Engineering assistance to ensure appropriate design and planning of mini-dam and hand-dug well rehabilitation or construction work will be done in collaboration with the MOW's regional, rural engineers' office.					

Section C. Cooperating Sponsor Recommendations for Beyond Compliance and Institutionalization of Environmentally Sound Practices

Please outline plans or recommendations (in a page or less) for institutionalizing environmentally sound design and management practices in future activities of a similar nature.